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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,073	01/19/2001	Ken Nozaki	500.39461X00	6793

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EXAMINER	
GRAHAM, CLEMENT B	

ART UNIT	PAPER NUMBER
3628	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/764,073	NOZAKI ET AL.	
	Examiner	Art Unit	
	Clement B Graham	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *January 19, 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8, and 11, are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case, claims 1-8, and 11, do not recite any structure or functionality to suggest that a computer performs the recited claims. Thus, claims 1, 7-8, 11, are rejected as being directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. As per claims 1-11, are rejected under 35 U.S.C. 102(e) as being anticipated by Lundahl et al (Hereinafter Lundahl U.S. Patent 6, 636, 862).

As per claim 1, Lundahl discloses a score calculation method of calculating a score using data (see column 33 lines 40-45) comprising the steps of:

disposing a plurality of layers and preparing a prediction model (see column 42 lines 40-50 and column 43 lines 20-25) for each of the layers to calculate to calculate a feature; calculating, according to a prediction model in a first layer (see column 31 lines 25-65 and column 32 lines 5-35) an output value using input data including at least one attribute selected from attributes ("i. e, variables") of the data (see column 30 lines 25-65) selecting a prediction model in a subsequent layer according to the output value (see column 31 lines 25-65 and column 32 lines 5-35) repetitiously executing the output value calculation step and the subsequent layer prediction model selection step until a prediction model of a final layer is reached, and calculating a score using the prediction model in the final model (see column 30 lines 25-65 and column 31 lines 25-65 and column 32 lines 5-35 and column 34 lines 55-65 and column 35 lines 5-10).

As per claim 2 Lundahl discloses, wherein the prediction model includes:
a scoring model to calculate a score using attributes of the input data; and
an attribute prediction model to predict, using attributes of the input data, a value of another attribute. (see column 30 lines 25-65 and column 31 lines 25-65 and column 32 lines 5-35 and column 34 lines 55-65 and column 35 lines 5-10).

As per claim 3, Lundahl discloses, wherein the prediction model in the final layer is a scoring model. (see column 32 lines 5-35 and column 35 lines 5-10).

As per claim 4, Lundahl discloses, wherein said selection of a prediction model in a subsequent layer is determined according to the output value and at least one threshold value. (see column 42 lines 40-55) as interpretive as claimed.

As per claim 5, Lundahl discloses, wherein said selection of a prediction model in a subsequent layer is determined according to the output value and a category to which the output value belongs. (see column 42 lines 40-55) as interpretive as claimed.

As per claim 6, Lundahl discloses further comprising the step of displaying a number of uses of an attribute used in the all layers. (see column 20 lines 30-35).

As per claim 7, Lundahl discloses further comprising the step of displaying prediction models used in the layers and output values thereof. (see column 20 lines 30-35).

As per claim 8, Lundahl discloses a score calculation system for calculating a score using data, comprising:
a prediction model to calculate a feature in each of a plurality of layers;
selecting means for selecting the prediction model in a subsequent layer; and
display means for displaying a score, wherein a prediction model in an N-th layer (N >= 1) calculates an output value using input data including at least one attribute selected from attributes of the data, said selecting means selects a prediction model in a subsequent layer according to the output value, and said display means displays a score including an output from said prediction model. (see column 30 lines 25-65 and column 31 lines 25-65 and column 32 lines 5-35 and column 34 lines 55-65 and column 35 lines 5-10).

As per claim 9, Lundahl discloses wherein said prediction model and said selecting ; means are implemented respectively by different;% computers. (see column 8 line 60).

As per claim 10, Lundahl discloses, wherein said prediction models are executed by a plurality of computers.(see column 8 line 60).

As per claim 11, Lundahl discloses a program for calculating a score using data, comprising the codes to executes the steps of: disposing a plurality of layers and preparing a prediction model for each of the layers to calculate a feature;
calculating, according to a prediction model in a first layer, an output value using input data including at least one attribute selected from attributes of the data;
selecting a prediction model in a subsequent layer according to the output value;
repetitiously executing the output value calculation step and the subsequent layer prediction model selection step until a prediction model of a final layer is reached; and
calculating a score using the prediction model in the final model. (see column 30 lines 25-65 and column 31 lines 25-65 and column 32 lines 5-35 and column 34 lines 55-65 and column 35 lines 5-10).

Conclusion

4. The prior art of record and not relied upon is considered pertinent to Applicants disclosure.

Spoerre et al U.S, 5, 602, 761 Patent) teaches machine performance monitoring and fault classification using an exponentially weighted moving average scheme.

.Heckerman et al (US Patent 5, 704, 017) teaches collaborative filtering utilizing a belief network.

Maghirmalani et al (US Patent 5, 819, 028) teaches method and apparatus for determining the health of a network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B Graham whose telephone number is 703-305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung S. Sough can be reached on 703-308-0505. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0040 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CG

July 23, 2004

FRANTZY POINVIL
PRIMARY EXAMINER
AU 3628